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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/804,730

03/19/2004

Brian Farrell

FM-208J

8270

32488

7590

08/02/2010

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EXAMINER

WORRELL JR, LARRY D

ART UNIT

PAPER NUMBER

3765

MAIL DATE

DELIVERY MODE

08/02/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/804,730	Applicant(s) FARRELL ET AL.	
	Examiner Danny Worrell	Art Unit 3765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-23,25,26 and 28 is/are pending in the application.
- 4a) Of the above claim(s) 7,8,15-23 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,6,9-14,26 and 28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 5, 6, 12-14 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amoroso (U.S.P. 5,531,601).

The patent to Amoroso (U.S.P. 5,531,601) discloses the electrically active textile article as claimed including a fabric (14, figure 1), a flexible circuit (fig 1 and 2) including traces (20) and pads (28, 30) on a flexible substrate (12) said substrate secured via sonic welding (36) to the fabric (14), and at least one electronic component (battery, column 2, paragraph 4) populating the circuit. However while the sonic welding of Amoroso (U.S.P. 5,531,601) appears to be the same as that disclosed by applicant it is not expressly set forth as being an *ultra* sonic welding process. Ultra sonic welding is notoriously well known as a means for sonically bonding articles. It would have been obvious at the time to provide the sonic welding process of Amoroso (U.S.P. 5,531,601) as ultrasonic in order to weld the substrates together at an inaudibly high frequency e.g. above 20,000 kHz. The traces (20) and pads (28) are electrically conductive (col 2, paragraph 3). The flexible substrate (14, Fig. 1) is a printed circuit board. The weld (36) is at the periphery of the useable substrate (12). The perimeter bond area devoid of traces and pads is secured via the weld (36).

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Claims 9-11 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amoroso (U.S.P. 5,531,601) in view of Benniou (U.S.P. 4,774,434).

As set forth above, the modified teaching of Amoroso (U.S.P. 5,531,601) teaches the invention as claimed. Bennion (at col. 1, lines 61-64) sets forth a flexible electric circuit (11) secured to fabric clothing (46) including a waterproof protective covering (40). It would have been obvious at the time the invention was made to provide the flexible circuit of Amoroso (U.S.P. 5,531,601) with a waterproof protective cover in order to prevent the circuit from malfunctioning in a wet environment.

Conclusion

Claims 7, 8, 15-23, and 25 remain withdrawn from further consideration.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Worrell whose telephone number is 571/272-4997. The examiner can normally be reached on MONDAY-THURSDAY.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GARY WELCH can be reached on 571/272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Danny Worrell/

Primary Examiner, Art Unit 3765

ldw